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BIBLIOGRAPHY

PART I: THE AUXILIARY SCIENCES

II. Chronology

It has been freely asserted, that up to within sixty years ago, History was scarcely more than a branch of literature, a field of intellectual endeavor with distinctly literary aims. That a change and a great change has come over this attitude is evident to all who will but compare the productions of the historical schools and seminars of the world with the popular historical literature of our grandfathers' day. History has now become a science—a cut-and-dried science, if you will, but a science which has made, perhaps, more progress the past half century than any other. History has become a technical science, which is limiting itself more and more not only to research work among the sources and materials, but also to the strict critical appraisement of these sources, and to a system of rules, as rigid as those of Euclid, for the use of the conclusions based on these judgments. Many deplore this change, for it is felt that it can only culminate in a process whereby History will be robbed of all her attractiveness. None ought to welcome this change more than those who are members of the Catholic Church. It may not be just to agree with De Maistre that History has been for the past three hundred years a conspiracy against the truth and against the Church, but if any corporate body is to profit by these more skilled efforts to learn the truth, it will be that Church which brought civilization to Europe and to America, and which has always cherished within her ranks the highest ideals of devotion to learning, to art, to science, and to religion. The popular Catholic American mind seems never to have gained the sense of the antiquity of its Church in this country. Few apparently appreciate the fact that our history goes back to the days of the Middle Ages; that the colonists who came here from Spain and France brought with them the conscious values of medieval institutions; and that the settlers from England did hardly more than establish laws which were strictly in accordance with the Capitulations of Runnymede of 1215. The present tendency in all our American centers of learning is to lay special stress on the European background of American history, or on what may be called the American foreground of European history. This fact alone would postulate among the students of American history a knowledge of all those kindred or auxiliary sciences, which are of vital import in the study of European history. It may be true that history tends to lose her soul in the presence of these temptations to specialize distinct branches, such as Chronology, Paleography, Diplomatics, etc., etc., but accuracy of time, of place, of event, and of *dramatis personae* is too valuable an asset to be preferred after style and pleasure.

Chronology and Geography have been called the two eyes of History, without the use of which all is confusion and uncertainty. There are two general branches in the science of Chronology—*Mathematical* (Theoretical, Astronomical), and *Historical* (Technical). *Mathematical* Chronology is that part of the science of mathematics which determines the laws to be used in measuring

time. *Technical or Historical Chronology*, of which we treat here, has for its object the system of authenticating the dates given in the documents and of bringing these dates, if necessary, to their corresponding place in our system of computing time. Up to modern times, as we can see at a glance from the pages of Giry's *Manuel de Diplomatie*, Chronology was a confused mass of systems and methods. There have been not only different methods of computing the eras, but also many diverse systems of numbering the cycles of the years, the beginning of the year, the days of the month, and the parts of the day. Now, the date, as has been observed, is the most indispensable single factor in the study of a document, both from the historical as well as from the legal point of view. A knowledge of the systems of time-calculation employed in the Middle Ages and in modern times is, therefore, a *conditio sine qua non* of historical research. The year was begun, for example, in different parts of Europe, on January 1 (*Style of the Circumcision*); March 1 (*Style of Venice*); March 21 or 22 (*Style of the Vernal Equinox*); March 25 (*Style of the Annunciation*); August 11 (*Style of Denmark*); September 21 or 22 (*Style of the Autumnal Equinox*); December 25 (*Style of the Nativity*); Easter (*Style of France*). There were also, under the Julian Calendar, the divisions of the months into *Kalends*, *Nones* and *Ides*; and the much-used divisions of *indictions*—a relic of the days of the Roman Empire, when the year was divided up into units of fifteen for the purpose of revising the collection of taxes. These various modes of beginning the year, not only in different countries, but even in the same country, have caused the confusion which would still be resting on the science of Technical Chronology, had it not been for the great classic of the Benedictines of France, *L'Art de Vérifier les Dates*, which was begun under the direction of Dom Maur d'Antine, and continued by Dom Clemencet and Dom Durand, who published the first edition of the work, in Paris, in 1740. Dom Francis Clement revised the work and published subsequent editions in 1770, and in 1783–87. A fourth edition was published by Saint-Allais between 1818–44, in two separate forms: one in forty-four volumes *octavo*, and the other in eleven volumes *folio*. One of the first scholars to attempt a reform of this science was Joseph Scaliger, in his *De Emendatione Temporum* (Paris, 1583), which has since become the basis for all chronological study. In 1627 Petavius, better known for his theological works, published his studies: *De Doctrina Temporum* (Paris, 1617), and *Rationarium Temporum* (Paris, 1633). The most complete of all the Manuals on Chronology is that of C. Ludwig Ideler, *Handbuch der mathematischen und Technischen Chronologie* (two volumes, Berlin, 1825–26), of which a short compendium exists: *Lehrbuch der Chronologie* (Berlin, 1831).

We see the sun rise in the morning, Ideler says in the *Preface* of his *Handbuch*, we see it reach its full zenith at midday, and withdraw itself from our sight in the evening, and during the time of its "coming and going" we have been living through parts of the day, month, year, and era, as humanity has done since the beginning of creation. The attempt to measure these periods of time has given rise to several sciences, and among them *Chronology* has attempted to place order in the series of centuries which have gone by; for no surer test of the authenticity of a statement or the genuineness of a document exists, than the perfect agreement of any two or more dates which may be mentioned therein. There are

few subjects of an erudite nature, says another writer, of greater utility to the historian and at the same time fraught with thornier difficulties than that of Technical Chronology. The first difficulty to be borne in mind by the student of American Church History is that a very important change occurred in our system of time-calculation by the Bull *Inter gravissimas pastorales officii nostri curas*, of Gregory XIII, February 29, 1582. The errors in the Julian method of computing the year and the discrepancy which existed between the astronomical year (as sustained by Mathematical Chronology) and the ordinary reckoning in use amounted, in 1582, to ten days, so that the Julian system, introduced by Caesar (45 B. C.), had fallen ten days in arrear. The alteration made by Gregory XIII, since known as the *New Style* (often abbreviated to N. S.), and as the *Gregorian Calendar*, consisted in this: that by pontifical law the fifth of October, 1582, was to be called the fifteenth. St. Teresa's feast day, although she passed away in reality on October 4, 1582, is now celebrated October 15, 1582. Gregory XIII determined that the year should begin all over the Western World on the same day, January 1. In order to prevent the Julian error from causing an arrear in the future, he ruled that three leap years should be omitted in every four centuries, namely, those of the centennial years the first two figures of which are not exact multiples of four, as 1700, 1800, 1900, 2100, etc.

For the purpose of ascertaining the exact dates of documents, it is important to remember when the *New Style* was adopted in the various countries of Europe. Denmark, France, Spain, Portugal, Italy (not wholly), Holland and the greater part of Belgium, and Lorraine adopted the Gregorian Calendar in 1582; in Germany and Switzerland the *Catholic* provinces adopted it in 1584, the *Protestant* provinces, in 1700; in Poland it was adopted in 1586; in Hungary, in 1587; in Tuscany, in 1749; and in Great Britain and Ireland, in 1752. Since the Catholic life of the United States has been more closely united with that of Great Britain and Ireland, especially in the days before the organized Hierarchy (1607-1789), much confusion has occurred from the discrepancy of the time-computation made at London and at Rome—our chief ecclesiastical centres during this period. The usual example of this discrepancy is the date of Queen Elizabeth's death. This occurred in what was then styled in England March 24, 1602, being the last day of the legal year. On the Continent, and wherever the New Style prevailed, this day was April 3, 1603. To avoid ambiguity, historical students frequently express this difference as $\frac{\text{March 24}}{\text{April 3}}, 160\frac{2}{3}$. Our history books have modernized all these dates; but with the history of the Catholic Church of America, which in large part remains to be written, the research-worker must proceed with the strictest caution, if the sequence of cause and effect is to be kept unbroken in his narrative. Not only must the difference of ten days be reckoned in Irish and British history before 1752, but the two "New Year's" days of January 1 (the historical year), and of March 25 (the civil, ecclesiastical, and legal year), must be kept separate. For example, the execution of Charles I, according to one system, is January 30, 1648; according to another, January 30, 1649.

Other works on this subject, besides those already mentioned, are the following:

ARBUTHNOT, *The Mysteries of Chronology*. London, 1900.

BLAIR, *Chronological Tables*. New York, 1888.

BOND, *Handy Book of Rules and Tables for Verifying Dates with the Christian Era*. London, 1875.

CARRERESI, *Cronografia generale dell'era volgare dall'anno I all'anno 2000*. Florence, 1875.

CHAMBERS, R., *The Book of Days, a Miscellany of Popular Antiquities in Connection with the Calendar, including Anecdote, Biography, and History, Curiosities of Literature, and Oddities of Human Life*. Edinburgh, 1888, 2 vols.

GAMS, *Series Episcoporum Ecclesiae Catholicae*. Ratisbon, 1873.

(For the part concerning the United States, this is being superseded by the publication of Bishop Corrigan's studies in this REVIEW, on the *Chronology of the Catholic Hierarchy in the United States*.)

GROTEFEND, *Zeitrechnung des deutschen Mittelalters und der Neuzeit*. Hanover, 1891; *Handbuch der historischen Chronologie*. Hanover, 1874.

HALES, *A new Analysis of Chronology and Geography, History and Prophecy, etc.*, etc. London, 1830. 4 vols., 2d ed.

HAYDN, *Dictionary of Dates*. New York, 1883, 17th ed. (Up to autumn of 1881).

MACDONALD, *Chronologies and Calendars*. London, 1897.

NICHOL, *Tables of European History, Literature, Science and Art, from 200 to 1888, and of American History, Literature and Art*. Glasgow, 1888.

RIBEIRO, JOAO PEDRO, *Dissertação sobre las Datas dos Documentos e Monumentos da Hispanha e especialmente de Portugal*. Lisbon, 1810-35, 2 vols.

SPANHEIM-WRIGHT, *Ecclesiastical Annals*. Cambridge, 1829.

WEINGARTEN, *Zeittafeln und Ueberblicke zur Kirchengeschichte*. Leipzig, 1891.

The student of Church History can dispense with several of these works on *Chronology*; but he should possess BOND or HAYDN, and preferably GIRY's *Manuel de Diplomatique* (Paris, 1894), which is the best compendium on the subject. In the next issue of the REVIEW we shall take up two other Auxiliary Sciences—*Paleography* and *Diplomatics*.

(To be continued)